ABSTRACT OF THE DISCLOSURE

A magneto-optical recording medium and a method for recording and reproduction thereon are provided in order to reproduce information recorded by multi-valued recording at a high S/N ratio. Disclosed is a magneto-optical recording medium including two magnetic layers capable of four-valued recording based on four combined magnetization states. Magnitudes of reproduction signals concerning the four magnetization states, obtained upon reproduction at a wavelength λ_1, are different from those obtained upon reproduction at a wavelength λ_2. The two magnetic layers, on which a signal (a) is recorded, are irradiated with light beams having the wavelengths λ_1 and λ_2 respectively. Signals (d), (e) reproduced from respective reflected light beams are sliced by using at least one slice level to obtain two-valued or higher multi-valued reproduction signals respectively. The two-valued or higher multi-valued reproduction signals (f), (g) from the respective wavelengths are mutually subjected to logical operation to reproduce recorded information (i).